

**Presbyterian Senior Living
Glen Meadows Retirement Community
Annual Drinking Water Quality Report For 2016**

PWSID 0030208

June 30, 2017

We're very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. Our water source consists of two wells that draw from an underground aquifer that has become influenced by surface water. At times (usually during high rainfall events) the source water becomes adversely affected by turbidity which may bring along with it coliform and fecal coliform bacteria. PSL constructed a surface water treatment plant consisting of ultra and reverse osmosis filtration that has been in service since November 2013 to effectively treat source water adversely affected by surface water contaminants.

This report shows our water quality and what it means.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If you have any questions about this report or concerning your water, please contact Jack Bradshaw at 443-903-4758. We want our residents to be informed about their water.

Glen Meadows Retirement Community routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2016. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant





Maryland

Department of
the Environment

Larry Hogan
Governor

Boyd Rutherford
Lieutenant Governor

Ben Crumblins
Secretary

003 0208
COR

Consumer Confidence Report Certification

Water System Name: Glen Meadows Retirement Community

Water System Number: 003-0208 County: Baltimore

I confirm that the CCR for the year **2016** has been distributed to customers (and appropriate notices of availability have been given) in accordance with COMAR 26.04.01 by July 1, 2017. I further certify that the report is correct and consistent with compliance monitoring data previously submitted to MDE.

Certified by: Name JACK BRADSHAW JR.
Signature [Signature]
Title Water Superintendent
Phone # 410-319-5036 Date 6/30/17

Specific details on CCR distribution: (Insert **DATE** that the Actions were completed for all that apply)

6/30/17 CCR was delivered to MDE

CCR was distributed to customers by placed in each residents mail box

Mail

Other methods posted on environmental community bulletin board

Approved electronic delivery plan is on file with MDE. (Check if applicable)

A notice of CCR availability was published.

Good faith efforts were used to reach non-bill paying consumers. Those efforts included the following recommended methods:

CCR posted on the Internet (include Internet address: _____)

CCR mailed to postal patrons (bulk mail) within the service area (attach zip codes).

Advertising availability of the CCR in news media (attach copy of announcement)

CCR published in local newspaper (attach copy).

Delivery of multiple copies to single bill addresses serving several persons, such as: apartments, businesses, and large private employers.

Delivery to community organizations (attach a list)

Public notification provided in 2016 CCR (check all that apply):

☒ Maximum Contaminant Level and Treatment Technique violations

☒ Monitoring and reporting violations

CCR Delivery or Adequacy Violations are addressed in the CCR

Mandatory for systems serving 100,000 or more persons:

CCR posted on a publicly accessible Internet site

(include Internet address: _____)

CCR delivered to other agencies or additional methods used. (Optional, attach list or description)



MDE/WMA/COM 025 (Revised 5/2017)

that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants						
Alpha emitters (2013)	N	2.0	pCi/l	0	15	Erosion of natural deposits
Beta/photon emitters (2013)	N	4.0	pCi/l	0	50	Decay of natural and man-made deposits
Combined radium (226 & 228) (2013)	N	0.8	pCi/l	0	5	Erosion of natural deposits
Inorganic Contaminants						
Copper (2015)	N	0.149	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (2015)	Y	20	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate (as Nitrogen) (annual)	N	3.1	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride (2014)	N	ND (>0.2)	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Synthetic Organic Contaminants including Pesticides and Herbicides						
Di (2-ethylhexyl) phthalate	N	1.0	ug/l	0	6	Discharge from rubber and chemical factories
2,4-D (2013)	N	0.5	ug/l	70	70	Runoff from herbicide used on row crops
Volatile Organic Contaminants						
THM (Distribution) [Total trihalomethanes]	N	2.906	ug/l	0	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (distribution) (2016)	N	<5	ug/l	0	60	By-product of drinking water chlorination
Unregulated Contaminants						
Chloroform (2016)	N	0.810	ug/l	N/A	N/A	By product of chlorine disinfection

Bromoform (2016)	N	<1	ug/l	N/A	N/A	By product of chlorine disinfection
Bromodichloromethane (2016)	N	<0.5	ug/l	N/A	N/A	By product of chlorine disinfection
Dibromochloromethane (2016)	N	<0.5	ug/l	N/A	N/A	By product of chlorine disinfection

Note: Test results are for year 2013 unless otherwise noted; all tests are not required on an annual basis.

GMRC water supply has been determined to have a very slight elevated lead level in the finished drinking water being supplied since the semi-annual lead and copper monitoring period of July thru December 2012. As a result of that exceedance, GMRC is required to perform additional source and finished water testing, complete and provide notice of lead public education requirements yearly and recommend to MDE optional corrosion control treatment techniques to reduce the elevated lead levels. Additionally, follow-up lead and copper monitoring is to be completed per regulatory requirements.

GMRC received a Notice of Violation letter from MDE on June 24, 2016 in regards to the monitoring, reporting and treatment technique requirements of the Lead and Copper Rule, July 7+8 2016. MDE completed an onsite exhaustive review of past documentation and system performance and determined many of the identified violations from the letter received 6/24/16 had been previously addressed. The slightly elevated lead levels were still present and GMRC was required to conduct follow-up lead and copper monitoring for the July thru December 2016 monitoring period. In addition, GMRC was required to perform additional water quality parameter monitoring and source water monitoring.

Lead and Copper sampling was performed on 7/19/16. Again, sample analysis indicated a slight exceedance to the 90th percentile sampling calculation. The MCL Action Level stated earlier in the report is 15 ppb. GMRC 90th percentile level was 20 ppb. Note: Of the 10 samples taken, all the patio homes were well below the MCL and the food services stations were well below the MCL. The Manor house is typically where the elevated lead levels occur due to the advanced age of the original structure and the copper piping and older lead soldering that was used. GMRC maintenance has made and continues to make concentrated efforts to replace older fixtures with modern lead free fixtures and replace any copper piping accessible during repair.

As a result of the slight lead level exceedance in July 2016, GMRC completed all the L+C Rule requirements including public education and optimum corrosion control recommendations. As a precaution and MDE recommendation, GMRC initiated supplying bottled water to the residents that remained in affect the remainder of 2016. On November 2, 2016 GMRC received approval from MDE on the recommended corrosion control submitted earlier and proceeded with the implementation of a ph/alkalinity control system that will allow for the strict control of the finished water ph by adding a low concentration of sodium hydroxide to the SWTP finished water. Elevating and maintaining the pH to 7.5-7.8 will stabilize and reduce the lead and/or copper from leaching back into the water supply from the systems piping.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Presbyterian Senior Living is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Lead: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

Both source water wells have been determined to be GWUDI (groundwater under direct influence with surface water). Although we do see spikes in turbidity and no doubt would have seen the presence of coliform bacteria during those spikes, the SWTP continues to operate flawlessly, removing all contaminants and delivering exceptional water quality for the 3.75 years the plant has been operational. Turbidity as measured in NTU is an indication of the system performance. The GMRC SWTP maximum turbidity level detected in 2016 was 0.08 NTU well below the 1 NTU action level. In combination with supplying bacteria and virus free water the RO (reverse osmosis) system is removing 80% of the calcium / magnesium compounds which make the water very hard. Source water at GMRC is very hard, typically about 280 ppm but the RO process delivers finished water at approximately 50-80 ppm at a 75 / 25 % blend ratio. RO/UF. Softer water makes for better cleaning capabilities. Heavy RO blend reduces system ph, however the proposed pH control system will compensate for the RO reduction and stabilize the distribution system ph.

Thank you in advance for your attention to this Water Quality Report (CCR) for 2016. If you need additional information or have questions concerning this matter please do not hesitate to contact PSL Management or Jack Bradshaw (PSL), Plant Superintendent for Water and Wastewater at Glen Meadows Retirement Community. (#5036)

Sincerely,

Jack Bradshaw: Superintendent: Water/Wastewater

